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Nata

LumCAT: 4-2222-A
Luminaire: BJB47.319.2030
Report No: NT2017092004
Test No: GC2017092004
LampCAT: Bridgelux V22B
Lamp flux(lm): 5885.0
Number of Lamps: 1
Length(mm): 100
Phm Type: C

Voltage(V): 50.8000
Current(A): 0.8000
Power (W): 40.6400
PF: 0.0000
Ballast type: DC
Width(mm): 100
Height(mm):0

Photometric Results

Lumens(lm): 5236.14
Efficiency(%): 88.97%
Lumens(lm)/Power(W): 128.84
Central intensity(cd): 5501.786
Maximum intensity(cd): 5560.559
Angle of maximum intensity: C=0.0 γ =5.0
Beam Angle(50%Imax): [C0/180]Total=62.8
 [C90/270]Total=62.8
Field angle(10%Imax): [C0/180]Total=78.9
 [C90/270]Total=78.9
Maximum s/h(1/2): C0_180=1.03 C90_270=1.03
Maximum s/h(1/4): C0_180=0.91 C90_270=0.91
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.45%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.185%

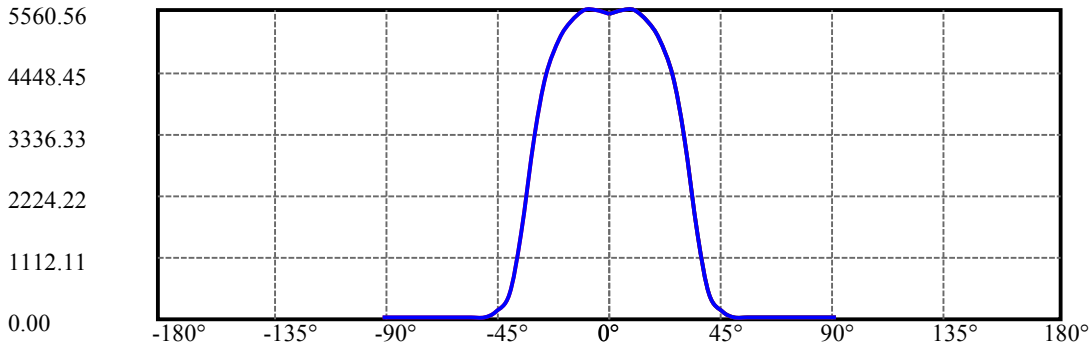
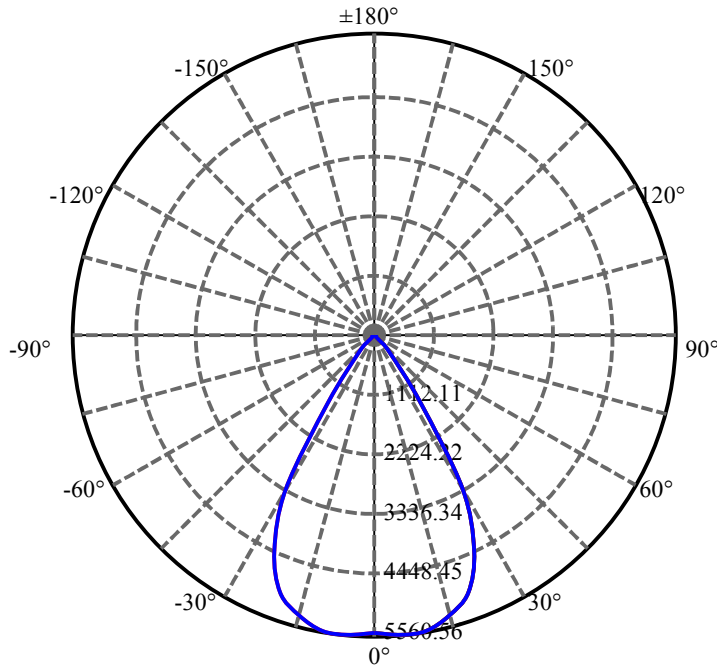
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5501.786	32.902	32.902	.559%	.628%
5.0	5560.559	265.646	298.548	4.514%	5.702%
10.0	5554.503	528.695	827.243	8.984%	15.799%
15.0	5370.408	761.891	1589.134	12.946%	30.349%
20.0	5048.672	946.495	2535.629	16.083%	48.426%
25.0	4376.364	1013.797	3549.426	17.227%	67.787%
30.0	3272.690	896.942	4446.368	15.241%	84.917%
35.0	1509.385	474.549	4920.917	8.064%	93.980%
40.0	436.776	153.892	5074.809	2.615%	96.919%
45.0	125.563	48.667	5123.476	.827%	97.848%
50.0	47.982	20.147	5143.623	.342%	98.233%
55.0	28.905	12.978	5156.601	.221%	98.481%
60.0	25.119	11.924	5168.526	.203%	98.709%
65.0	23.805	11.826	5180.352	.201%	98.935%
70.0	23.296	11.999	5192.351	.204%	99.164%
75.0	23.089	12.225	5204.576	.208%	99.397%
80.0	23.729	12.809	5217.385	.218%	99.642%
85.0	23.014	12.567	5229.952	.214%	99.882%
90.0	22.566	6.185	5236.136	.105%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	4446.37	75.55%	84.92%
0-40	5074.81	86.23%	96.92%
0-60	5168.53	87.83%	98.71%
0-90	5229.95	88.87%	99.88%
0-120	5229.95	88.87%	99.88%
0-180	5236.14	88.97%	100.00%
60-90	73.35	1.25%	1.40%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-28.56	4188.91	71.18%	80.00%

ZONAL LUMEN SUMMARY

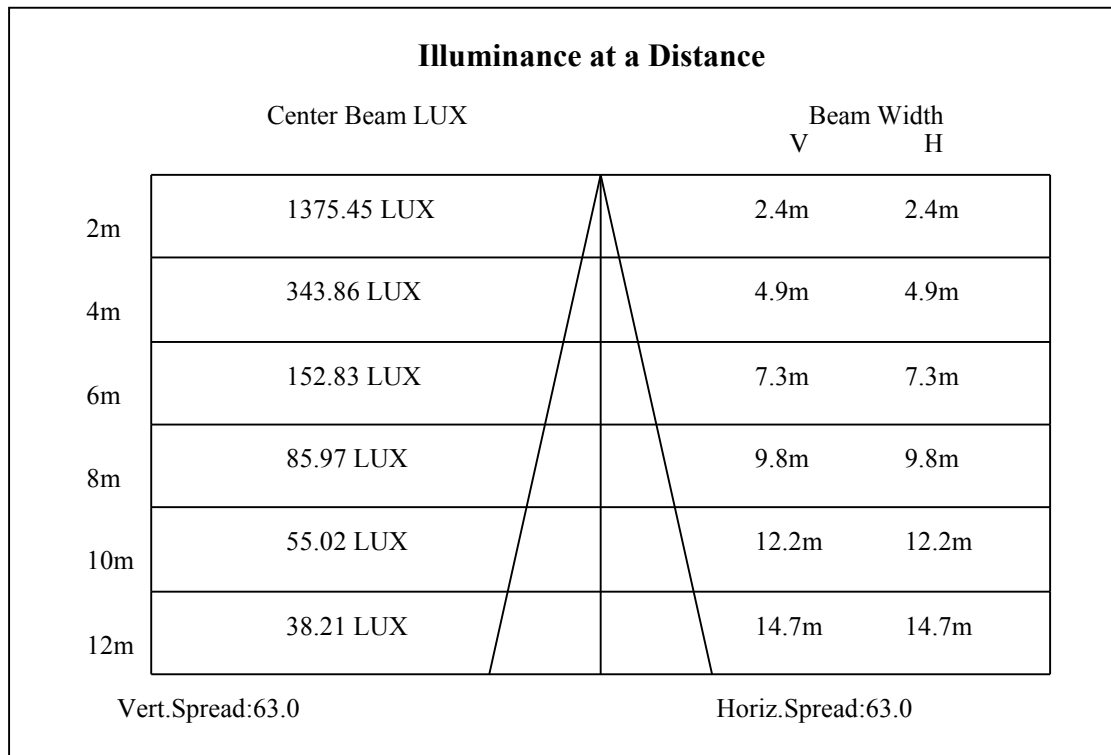
0-10	827.24
10-20	1708.39
20-30	1910.74
30-40	628.44
40-50	68.81
50-60	24.90
60-70	23.83
70-80	25.03
80-90	12.57
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

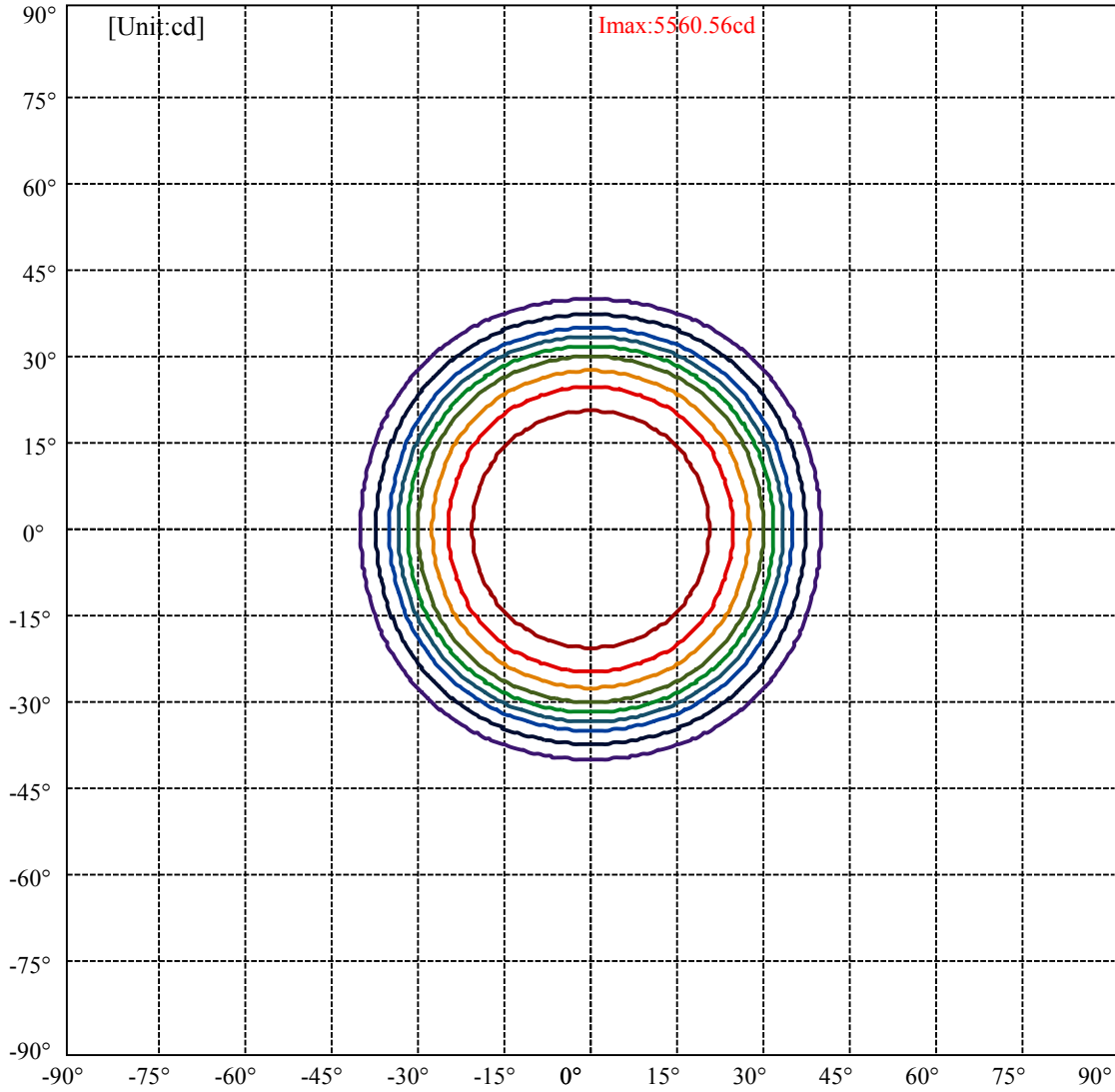


C0(Max): ———
C0/C180: ———
C90/C270: ———

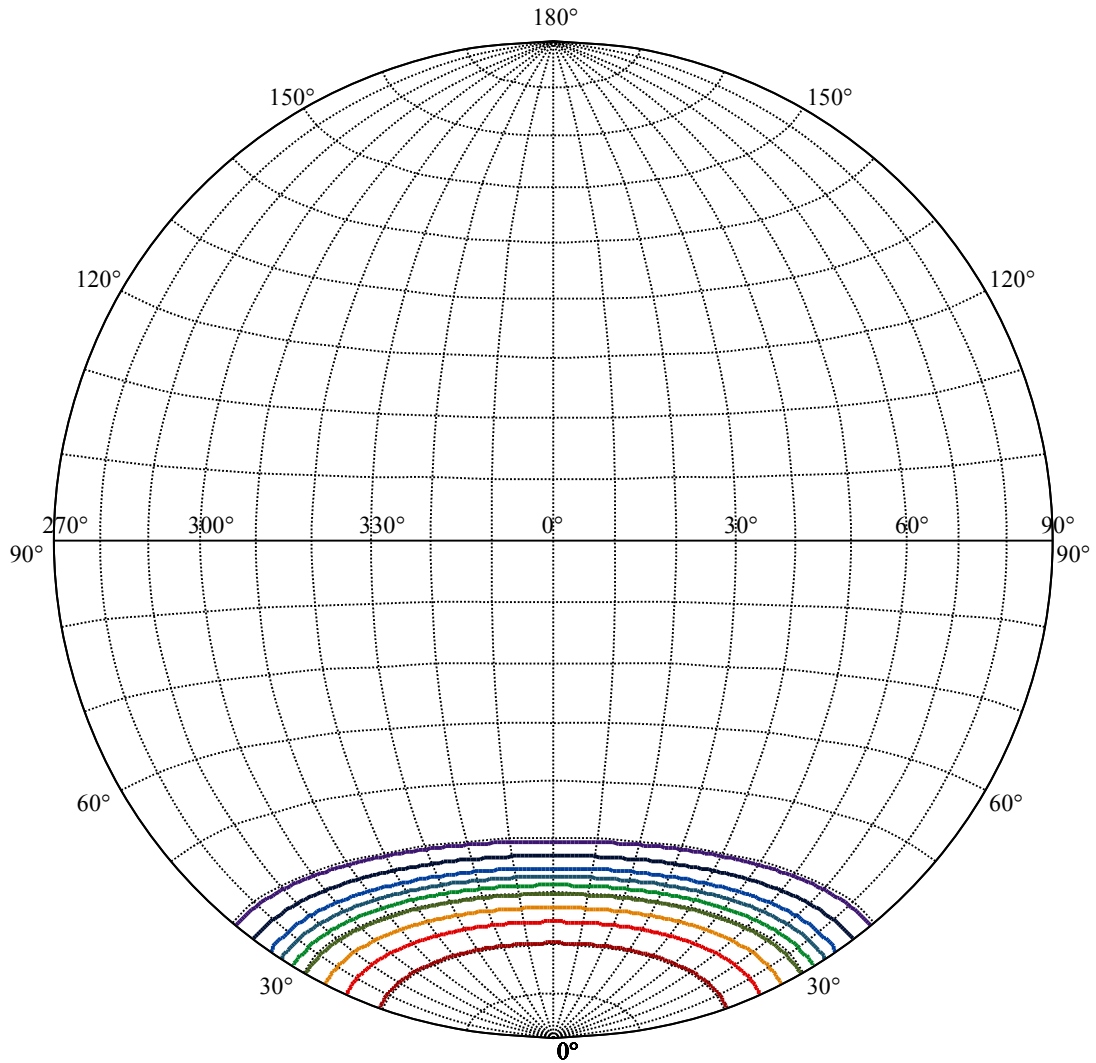
Field angle(10%Imax):C0/180Left:44.4 Right:34.4
:C90/270Left:44.4 Right:34.4

Beam Angle(50%Imax):C0/180Left:36.4 Right:26.4
:C90/270Left:36.4 Right:26.4





(10%Imax) 556.056	—
(20%Imax) 1112.11	—
(30%Imax) 1668.17	—
(40%Imax) 2224.22	—
(50%Imax) 2780.28	—
(60%Imax) 3336.34	—
(70%Imax) 3892.39	—
(80%Imax) 4448.45	—
(90%Imax) 5004.5	—



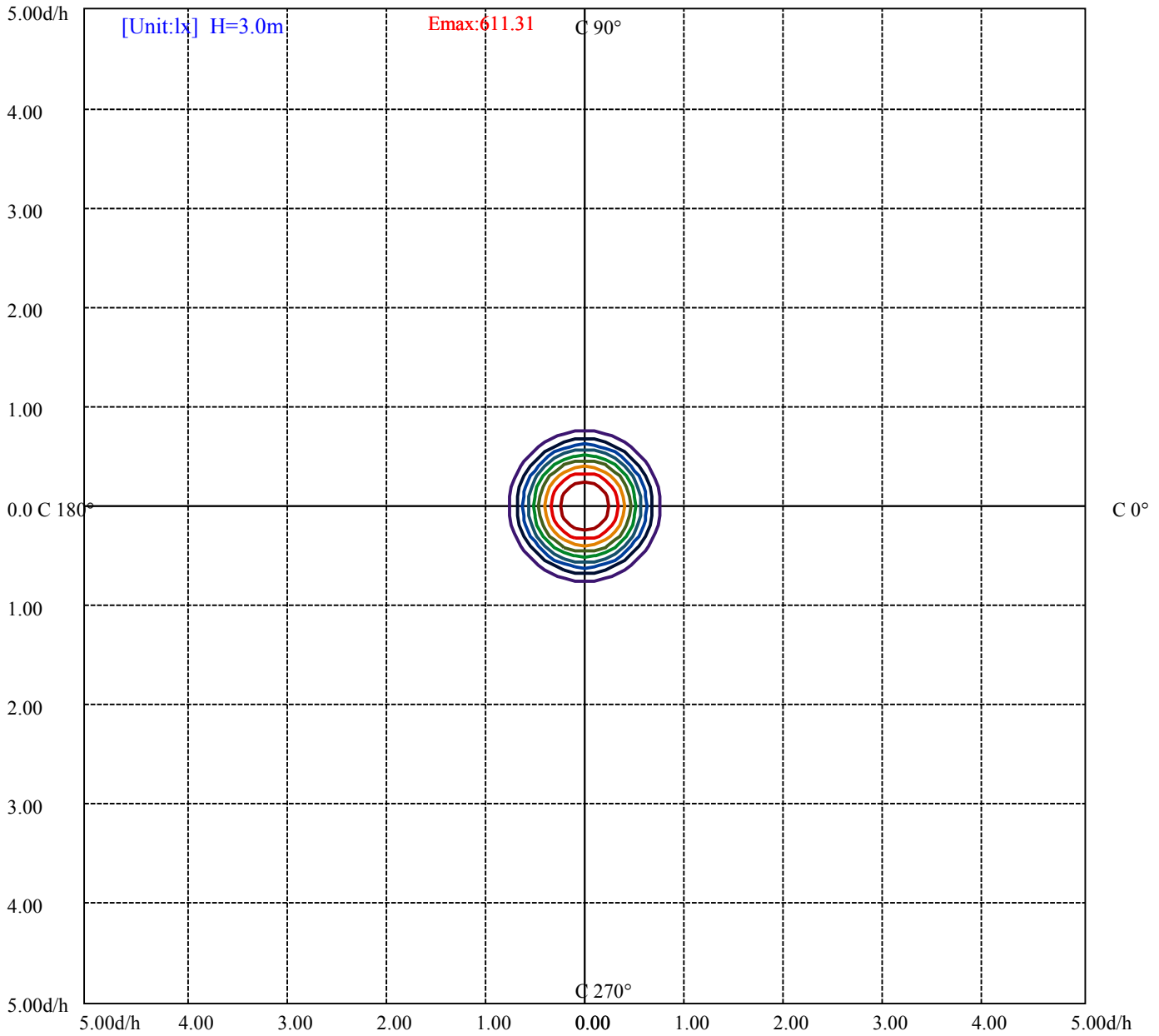
House

[Unit:cd]

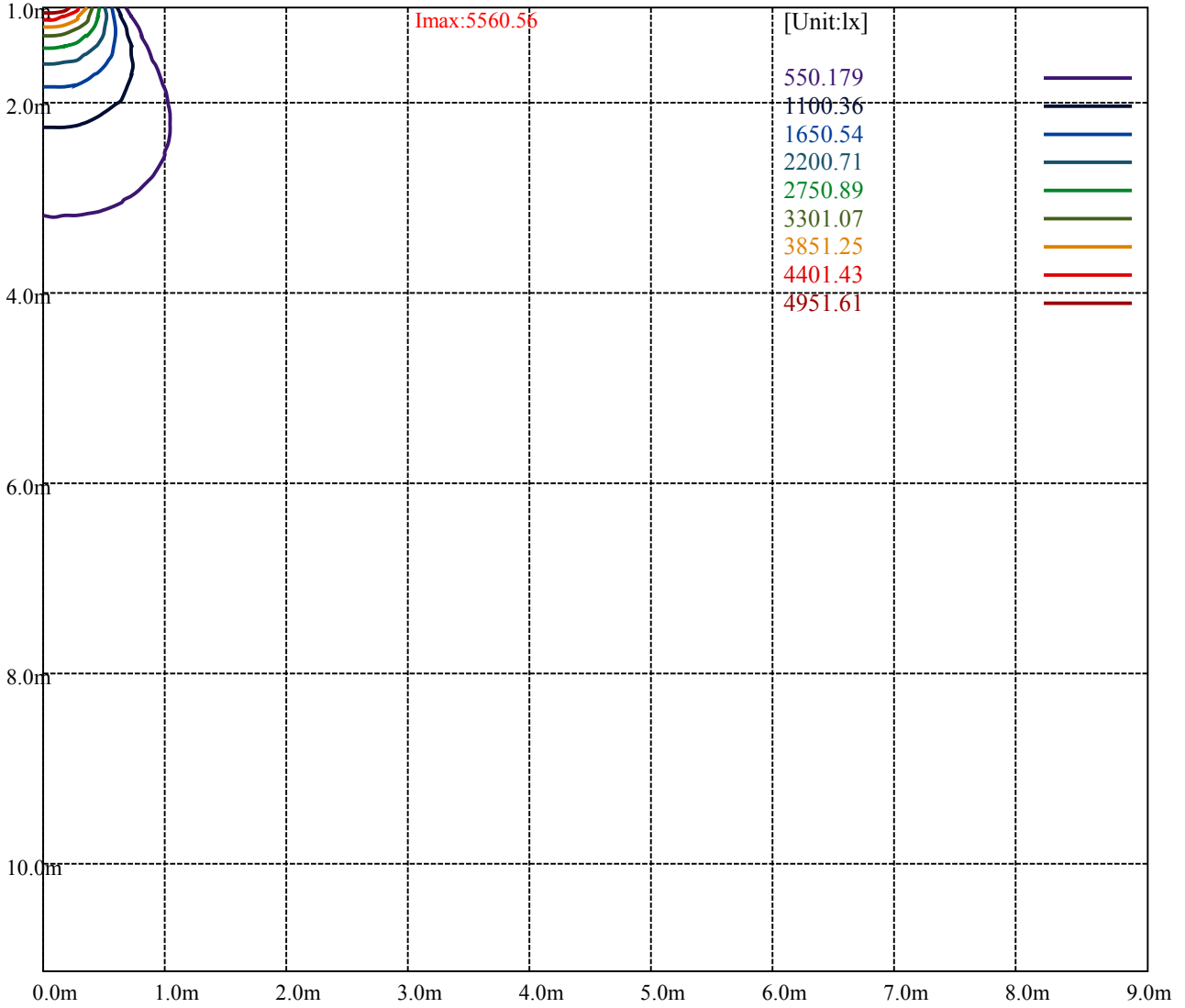
Road

Imax:5560.56

(10%Imax) 556.056	—
(20%Imax) 1112.11	—
(30%Imax) 1668.17	—
(40%Imax) 2224.22	—
(50%Imax) 2780.28	—
(60%Imax) 3336.34	—
(70%Imax) 3892.39	—
(80%Imax) 4448.45	—
(90%Imax) 5004.5	—



- (10%Emax) 61.131
- (20%Emax) 122.2622
- (30%Emax) 183.3933
- (40%Emax) 244.5244
- (50%Emax) 305.6544
- (60%Emax) 366.7856
- (70%Emax) 427.9167
- (80%Emax) 489.0478
- (90%Emax) 550.1789



Luminance Table

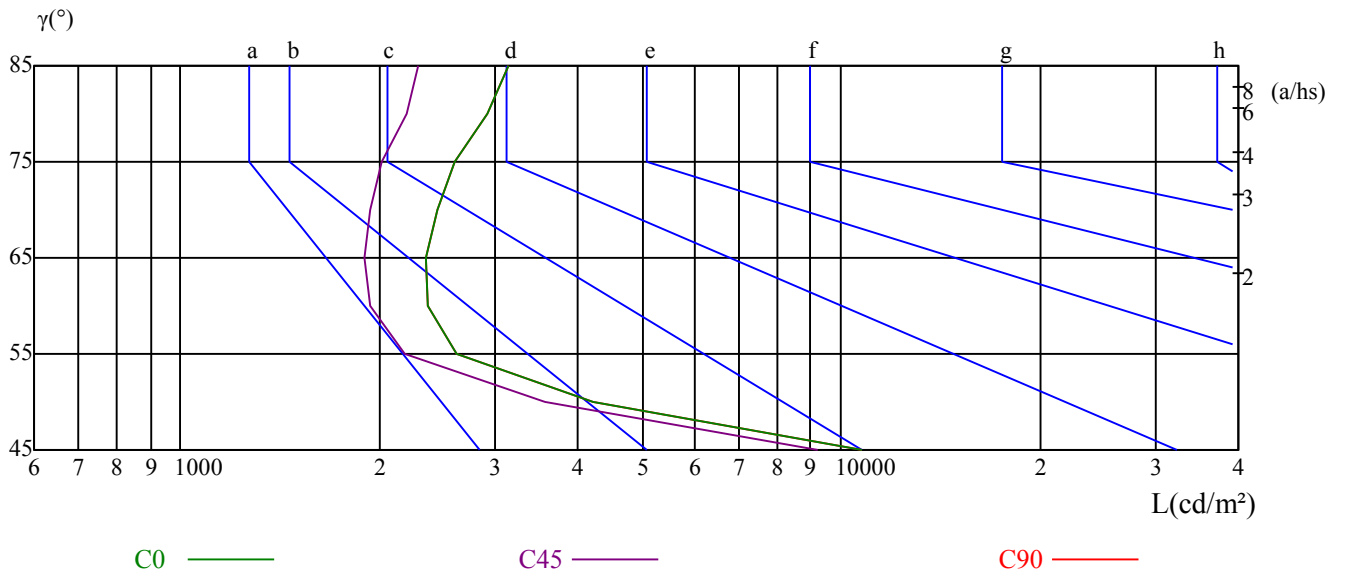
γ	45	50	55	60	65	70	75	80	85
C0	10762	4206	2613	2363	2353	2445	2604	2916	3132
C45	9252	3562	2179	1938	1896	1932	2013	2199	2295
C90	10762	4206	2613	2363	2353	2445	2604	2916	3132

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5633	5633	5633	8921	8921	8921	26405	26405	26405

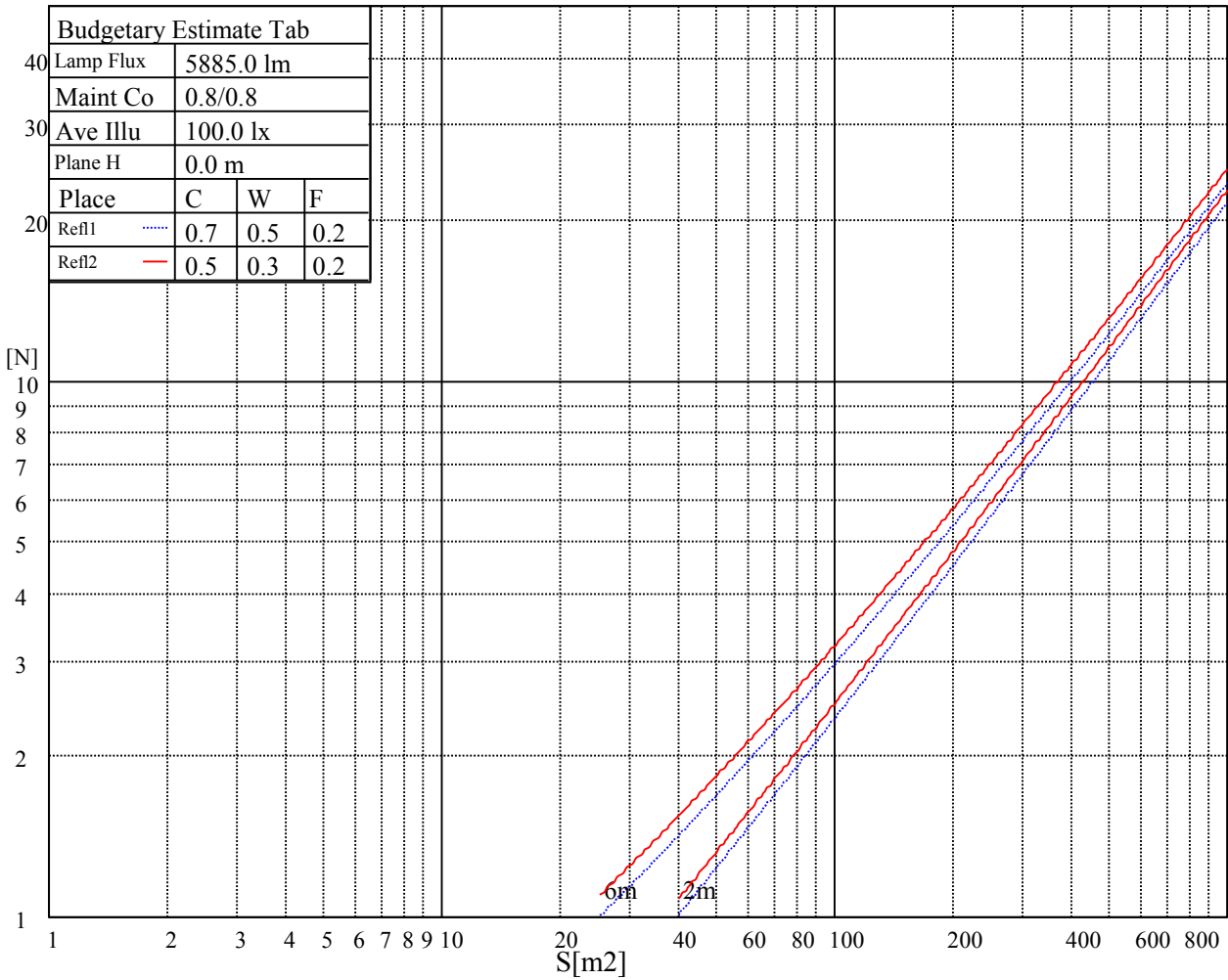
Glare Table

Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

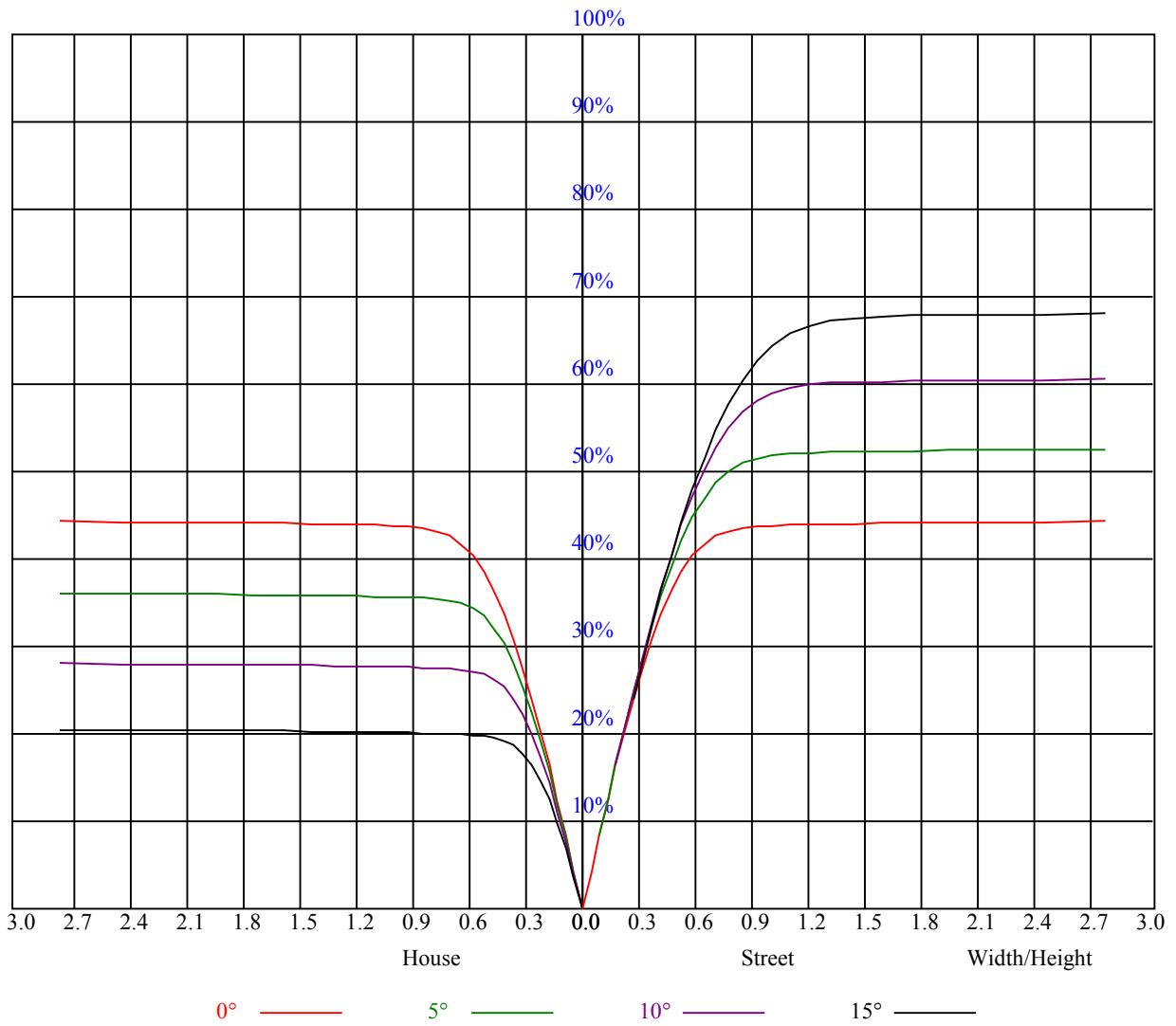
Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	-1.09	-0.15	-0.72	0.16	0.48	-1.27	-0.33	-0.90	-0.02	0.29
	3H	0.89	1.72	1.28	2.05	2.42	0.77	1.59	1.15	1.93	2.30
	4H	2.05	2.81	2.46	3.16	3.55	1.94	2.70	2.35	3.06	3.45
	6H	3.35	4.04	3.77	4.42	4.82	3.22	3.92	3.64	4.29	4.69
	8H	4.00	4.65	4.44	5.04	5.46	3.87	4.52	4.30	4.91	5.32
	12H	4.99	5.62	5.43	6.00	6.43	4.87	5.49	5.31	5.88	6.31
4H	2H	-0.71	0.05	-0.30	0.41	0.80	-0.86	-0.10	-0.45	0.26	0.65
	3H	1.60	2.22	2.02	2.63	3.04	1.50	2.12	1.92	2.53	2.94
	4H	2.95	3.50	3.38	3.93	4.38	2.86	3.42	3.30	3.85	4.30
	6H	4.35	4.83	4.83	5.28	5.76	4.26	4.74	4.73	5.19	5.66
	8H	5.13	5.58	5.61	6.03	6.50	5.03	5.47	5.50	5.92	6.40
	12H	6.13	6.51	6.62	7.00	7.48	6.03	6.41	6.52	6.90	7.38
8H	4H	3.38	3.82	3.85	4.27	4.75	3.31	3.75	3.79	4.21	4.68
	6H	5.05	5.40	5.56	5.90	6.39	4.96	5.31	5.47	5.82	6.30
	8H	5.97	6.29	6.51	6.81	7.31	5.88	6.19	6.41	6.71	7.21
	12H	7.10	7.37	7.62	7.87	8.45	7.01	7.27	7.53	7.77	8.36
12H	4H	3.47	3.85	3.96	4.34	4.82	3.41	3.79	3.90	4.28	4.76
	6H	5.44	5.53	5.76	6.01	6.56	5.37	5.46	5.68	5.93	6.48
	8H	6.25	6.51	6.77	7.01	7.59	6.16	6.43	6.68	6.93	7.51
Variation with the observer position at spacings:											
S = 1.0H		5.9/-10.2					5.9/-10.2				
S = 1.5H		8.5/-8.4					8.5/-8.4				
S = 2.0H		10.3/-7.3					10.3/-7.3				
Standard tables:		BK1					BK1				
Uncorrected UGR		0.5					0.5				



RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.99	0.96	0.94	0.97	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.83
2	0.93	0.89	0.86	0.91	0.88	0.85	0.88	0.86	0.83	0.86	0.83	0.82	0.83	0.81	0.80	0.78
3	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.80	0.78	0.81	0.79	0.76	0.79	0.77	0.75	0.74
4	0.82	0.78	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.74	0.72	0.76	0.73	0.71	0.70
5	0.78	0.73	0.69	0.77	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.72	0.70	0.67	0.66
6	0.74	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.62
7	0.70	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.59
8	0.66	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.56
9	0.63	0.58	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.54
10	0.60	0.56	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.51



Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	5499.03	5581.62	5628.97	5472.06	5238.07	4593.91	3595.73	2006.81	621.04
45.0	5500.13	5572.26	5597.03	5447.28	5133.46	4499.21	3564.35	1880.73	553.87
90.0	5502.89	5568.95	5530.42	5305.23	4946.27	4225.03	3003.88	1080.76	302.48
135.0	5505.09	5534.82	5500.68	5290.92	4951.22	4305.96	3179.51	1650.04	369.43
180.0	5499.03	5523.26	5472.06	5243.57	4882.40	4143.54	2922.39	1069.42	277.65
225.0	5500.13	5555.74	5512.80	5328.91	4929.20	4212.37	3003.33	1053.67	303.36
270.0	5502.89	5552.44	5586.57	5445.08	5174.75	4531.14	3556.09	1887.88	574.79
315.0	5505.09	5595.38	5607.49	5430.21	5134.01	4499.76	3356.24	1445.78	491.60
360.0	5499.03	5581.62	5628.97	5472.06	5238.07	4593.91	3595.73	2006.81	621.04

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	166.77	56.71	29.35	25.05	23.62	23.07	22.68	22.74	22.68
45.0	146.06	49.28	28.24	25.00	23.84	23.23	22.85	22.79	22.79
90.0	93.10	37.33	27.31	24.89	24.00	23.67	23.40	24.33	23.29
135.0	103.12	44.87	28.46	25.22	24.28	23.73	23.89	28.30	23.62
180.0	82.09	38.32	27.20	24.61	23.73	23.18	23.07	22.96	23.12
225.0	95.03	38.59	28.02	24.39	23.34	22.90	22.63	22.68	22.68
270.0	165.88	63.76	32.10	26.32	23.95	23.23	23.01	22.90	22.85
315.0	152.45	55.00	30.56	25.49	23.67	23.34	23.18	23.12	23.07
360.0	166.77	56.71	29.35	25.05	23.62	23.07	22.68	22.74	22.68

C/γ(°)	90.0
0.0	22.57
45.0	22.52
90.0	22.57
135.0	22.57
180.0	22.52
225.0	22.57
270.0	22.63
315.0	22.57
360.0	22.57